



# Hotwork®

## TECHNICIAN MEETING

TCG Comments

8/25/15



# TCG Topics

- Company Overview
  - Customer Feedback
  - Safety
  - Incidents
  - Sales Trends



Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of Biomass Combustor @Hawaii Biofuel. (1577811)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? Yes</b>	<b>8. Comments:</b> <i>On site crew was very professional and the site was very happy with them</i>

Name: Robert Stutsman

Title: PM

Date: 11/1/2005

JT Thorpe & Son  
1060 Hensley Street  
Richmond, CA 94801  
ATTN: Mr. Robert Stutsman

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Heatup & cullet fill of #51 Furnace @ Sapulpa, OK. (168500)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>9</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u> e. Checker heating? <u>10</u> f. Expansion control supervision (ECS)? <u>N/A</u> g. Cullet fill? <u>10</u> h. Furnace drain? <u>N/A</u> i. Sulfate burnout? <u>N/A</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? 10</b>	<b>8. Comments:</b>

Name: Doug Leget / Jon Eaton

Title: Engineers

Date: 6-29-15

Ardagh Glass Inc.  
PO Box 5600  
Muncie, IN 47307-5600  
Attn: Mr. Jon Eaton

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of 14 cyclones on unit #2 boiler @TVA, Drakesboro, KY. (1663500)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>8</u> b. Customer service personnel courteous and knowledgeable? <u>9</u> c. Quotation professional and complete? <u>7</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>9</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>9</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>10</u></b>	<b>8. Comments:</b>

Name: Jimmy L. Vincent  
Title: T.C.M.  
Date: 1-2-14

Myer Clarkville TVA  
3246 State Rte 176  
Suite 10  
Drakesboro, KY 42337  
ATTN: Mr. Jimmy Vincent

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of Cooler. (1678500)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b> <u>New equipment hoses/connections, etc. Takes longer for set-up than usual.</u>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>10</u></b>	<b>8. Comments:</b> <u>Another good project that was on-time and effective.</u>

Name: Randy McKee  
Title: Production Manager  
Date: 5-15-15

Texas Lehigh Cement Company  
701 Cement Plant Road  
Buda, TX 78610  
ATTN: Mr. Randy McKee

Tel: (859) 276-1570  
Fax: (859) 276-1583

# Safety Statistics

Data	2014	2013	2012	2011	2010	2009	2008	2007
OSHA Recordable Rate	0	2.13	1.98	0	0	3.49	4.39	1.1
Number of Fatalities	0	0	0	0	0	0	0	0
Number of Medical Treatments	0	2	2	0	0	1	3	1
Experience Modification Rate	0.85	0.80	0.80	0.99	1.01	0.77	0.79	0.84
Lost Workday Cases	0	1	1	0	0	2	1	0
Restricted Workday Cases	0	1	0	0	0	0	0	0
Total Company Manhours	179248	188068	201518	174137	168049	172005	182199	177870
OSHA Willful Violations	0	0	0	0	0	0	0	0



# Safety/Quality Incidents

- O-I Penrith – Aborted Glass Drain
- Recordable Injury – Broken Wrist
- O-I Oakland – Glass Eruption When Drilling
- OCF Amarillo – Glass Eruption When Drilling
- Hason/JTT – Didn't Follow Specified Curve
- Float Furnace – 18 SR Cones
- ***These are Learning Opportunities!***

# O-I Penrith

- Incident Report on Web
- Lost Control of Drain
- Fought, Froze Off, Restart
- Shutdown and Mine Glass
- *No Injuries!*
- Insurance Claim



Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Heatup with expansion control supervision (ECS) of Furnace No. 2 (1675600)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u> e. Checker heating? <u>NA</u> f. Expansion control supervision (ECS)? <u>10</u> g. Cullet fill? <u>10</u> h. Furnace drain? <u>NA</u> i. Sulfate burnout? <u>NA</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <u>X</u> No <u>    </u></b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>Yes</u></b>	<b>8. Comments:</b>

Name: Steve Hutchins  
Title: Program Manager  
Date: 17 June '15

G.E. Lighting  
Nels Park  
1975 Noble Road  
Cleveland, OH 44112  
ATTN: Mr. Steve Hutchins

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Thermal dryout/heatup of the R-39 POX Unit. (1651500B)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <u>✓</u> No <u>    </u></b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>10</u></b>	<b>8. Comments:</b> <u>These Guys Like Always</u> <u>Do A Great Job</u>

Name: Blue Carreon  
Title: Oxa Project Coordination  
Date: 10/13/14

Oxa Corporation  
PO Box 1141  
Bay City, TX 77404-1141  
ATTN: Mr. Blue Carreon

Tel: (859) 276-1570  
Fax: (859) 276-1583



# Broken Wrist – Recordable Injury

- During Setup in Refinery
- Blower Just Above Step Up
- Stumbled/Tripped
- Extended Arms to Break Fall
- Broken Wrist
- Surgery and Rehab



Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Heat curing of Roaster. (1623901)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b> <i>Service was professional and complete. No suggestions</i>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>8</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u> <i>Issues with uniformity was not fixed due to miscommunication &amp; thermometer location of refractory vendor. No heat at Hotwork.</i>	<b>6. What could Hotwork do to provide additional related services for you?</b> <i>None</i>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b> If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>Yes</u></b>	<b>8. Comments:</b> <i>Thank you for your service</i>

Name: B. Nichols  
Title: Project Engineer  
Date: 10/15/2014

Nyrstar Clarksville  
PO Box 1104  
Clarksville, TN 37041  
ATTN: Mr. Brandon Nichols

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of the SRU 543, D 204 Thermal Reactor at Valero (1649200)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b> If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>10</u></b>	<b>8. Comments:</b> <i>Hotwork's Field Employees performed the work professionally and accordingly. The Management provided me with quotes &amp; Technical Information quickly.</i>

Name: Jordan Allen  
Title: Project Manager  
Date: 7-21-14

JT Thorpe Company  
8021 Highland Avenue  
Beaumont, TX 77705  
ATTN: Mr. Jordan Allen

Tel: (859) 276-1570  
Fax: (859) 276-1583

# O-I Oakland Glass Eruption

- ◉ Drilling Flint at Doghouse
- ◉ Glass Erupts
- ◉ Video on Web
- ◉ Root Cause Uncertain
- ◉ *No Injuries!*
- ◉ Similar Incident 2005
  - Zanesville
- ◉ Defensive Corrective Actions
  - Same as Zanesville



# Technician Note 12/16/14

- “With less than perfect root cause identified, our corrective actions have to be completely defensive. We need to insure that openings such as the charge hole are secured better than with just kaowool. Whatever we use to cover the hole has to be able to withstand a wave of glass erupting from the drill site. This could be brick and/or board backed by metal. Especially when drilling into thin glass, we should probably slow down the drilling rate if, for some reason, it wants to go like butter. More cooling effect can only help.”

# OCF Amarillo Glass Eruption

- Drilling at Doghouse
- Glass Erupts
- Fiberboard Blown Out
- Glass Thrown 20'
- *No Injuries!*
- Report on Web





Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of Meller @SAPA in Spanish Fork, UT, (1855900)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b> Service went very well.
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b> Just keep answering the phone when we call. U
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>9</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <u>X</u> No _____</b> If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us?</b> <u>10</u>	<b>8. Comments:</b> The only negative that I have noticed is the difference in price from some competitors.

Name: Doug Johnson  
Title: Sales Engineer  
Date: 1-16-2015

Guy Nielson Co.  
PO Box 2029  
Pocatello, ID 83206  
ATTN: Mr. Keaton Campbell

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of rotary furnace. (1673700)

Highly Satisfied (10) .....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b> MAYBE HELP WITH INITIAL SET UP OF BRICKMUD HOLES DURING BURNING, ETC.
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <u>X</u> No _____</b> If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us?</b> <u>10</u>	<b>8. Comments:</b>

Name: Bill Casto  
Title: MAINTENANCE & FACILITIES MGR.  
Date: JAN 26, 2015

PTC Seamless  
500 Frank Yost Lane  
Hopkinsville, KY 42240  
ATTN: Mr. Bill Casto

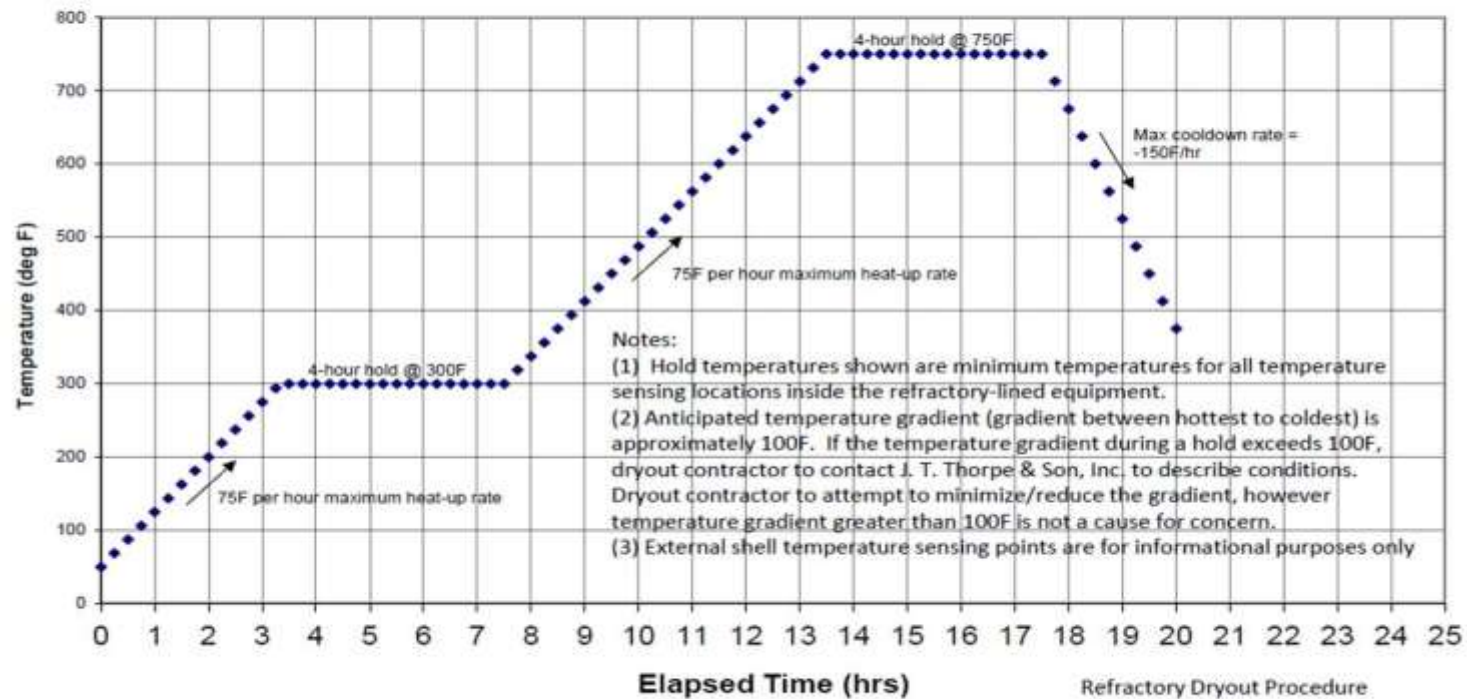
Tel: (859) 276-1570  
Fax: (859) 276-1583

# Hason – JT Thorpe Dryout

- Ultimate Customer is Flint Hills
- Dryout Curve Negotiated By Dan Devera



## REFRACTORY DRYOUT SCHEDULE FLINT HILLS RESOURCES THIRD STAGE SEPARATOR JUNE 2015



# Client Notifies Hotwork

**Tom Graham**

---

**From:** Irish Cobane  
**Sent:** Thursday, July 16, 2015 12:41 PM  
**To:** Larry Drake; Gary Moore  
**Cc:** Tom Graham; Dan Devera; Daniel Pompei (daniel.pompei@hotwork.com); Donna Esson  
**Subject:** OE 1679702 - JT Thorpe & Sons @ Hason, Warsaw, KY  
**Attachments:** 20150716115819697.pdf

The subject project completed on July 1 but the dryout has since been rejected by JT Thorpe & Sons and the vessel will likely need to be re-fired (not yet confirmed). We apparently did not adhere to the dryout instructions re the hold periods (see note 1 on attached dryout curve and which was in the crew folder) and which were to be controlled from the lowest temperature reading and not the highest. Reviewing the logs, the hold at 300F was fine but the last hold at 750F we had temperatures as low as 683F when we went into the hold. The temperatures on 8TC's at end of the 4 hr hold at 750F were:

745F  
756F  
699F  
732F  
717F  
711F  
711F  
696F

2 shell temperature TC's maxed out at 162F on one and 190F on the other.

Dwayne Jordan and J. Mounts were on the job. Per DD discussion with Dwayne, he missed the notes on the dryout graph. Dwayne was on days and J. Mounts on nights. The hold started and finished on night shift. At shift change Dwayne had no discussion with J. Mounts re the hold or what temperature location was to be used for the hold.

Obviously there needs to be discussion with this crew re the need to follow the written instructions.

Irish.

# Everybody Notified That HW Failed

De : Drew Sherk [<mailto:asherik@cecoenviro.com>]

Envoyé : 17 juillet 2015 11:38

À : Patrick Marquis

Cc : Dang Nguyen; Juan Guevara; [wmillerj@ad.com](mailto:wmillerj@ad.com); [rkise@cecoenviro.com](mailto:rkise@cecoenviro.com)

Objet : 784 RE: TSS upper head dryout chart

Patrick,

We are disappointed that they did not follow their own procedure. It clearly states in note 1 that the 750 F hold temperatures was a minimum for all sensor locations.

"Notes:

(1) Hold temperatures shown are minimum temperatures for all temperature sensing locations inside the refractory-lined equipment."

We will accept the dryout, and I have signed the NCR.

Hope we get better results on the vessel.

Sincerely,

Drew Sherk

Project Manager

**CONTROL-BUELL**

Phone: +1.717.274.7212

Fax: +1.717.274.7342

Cell: +1.717.798.4078

E-mail: [Asherk@cecoenviro.com](mailto:Asherk@cecoenviro.com)

102 Fairview Circle, Suite B

Lebanon, PA 17042

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of Hertwich furnace (1660900)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes _____ No _____</b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us?</b> <u>10</u>	<b>8. Comments:</b> <i>Hopefully we can find a way to keep the cost down for the future outages</i>

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Alcoa Wheel**  
842 Norton Avenue  
Barberion, OH 44203  
ATTN: Mr. Cliff Shotton

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Heatup with ECS of 'H' Glass Furnace (1624401B)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u> e. Checker heating? <u>N/A</u> f. Expansion control supervision (ECS)? <u>N/A</u> g. Cullet fill? <u>N/A</u> h. Furnace drain? <u>N/A</u> i. Sulfate burnout? <u>N/A</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <input checked="" type="checkbox"/> No _____</b>  If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us?</b> <u>10</u>	<b>8. Comments:</b> <i>Another outstanding job.</i>

Name: Jeff Remson  
Title: B & F Mgr.  
Date: 6/3/15

**Gerresheimer Glass Inc.**  
537 Crystal Avenue  
Vineland, NJ 08360  
Attn: Mr. Jeff Remson

Tel: (859) 276-1570  
Fax: (859) 276-1583



# 18SR Cones for Float

- ⦿ Nickel is Poison to Window Glass
- ⦿ Clients Specify Low Nickel Cones
- ⦿ We Use Double Wall to Raise Allowable Temperature

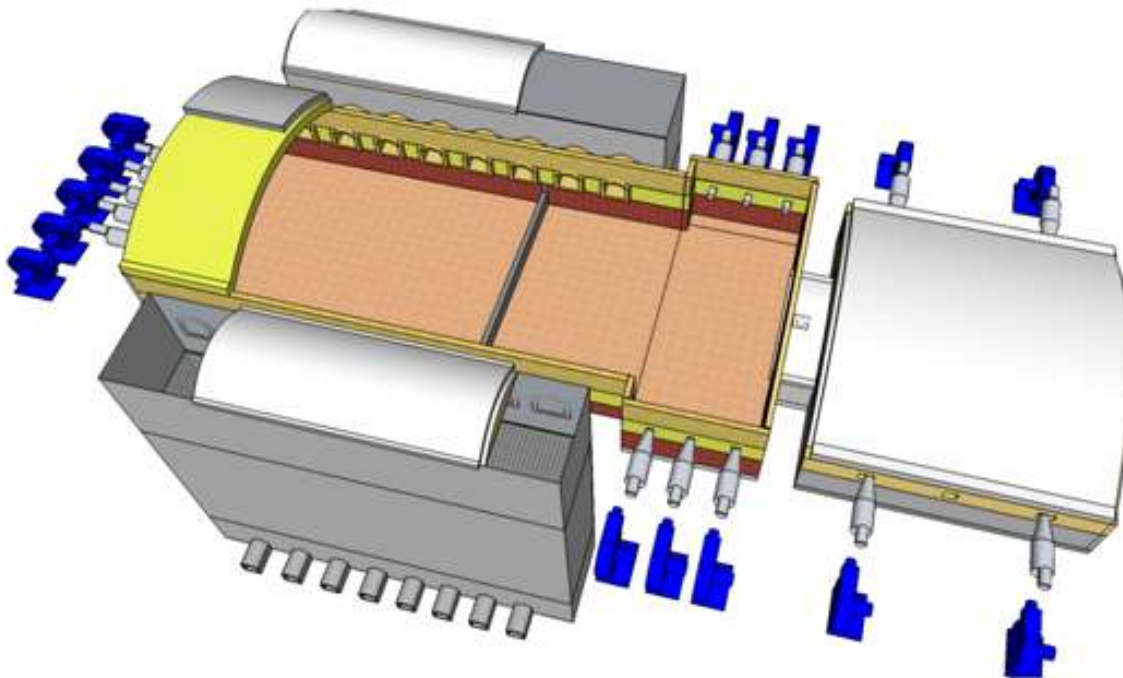
Grade	Fe	Cr	Ni	Design Temp Limit
Inconel	14	16	70	?
330	48	18	34	2100
304	74	18	8	1700
18SR	82	17	0.25	1600



# 45 Cones Help Circulation

- During Silica Expansion

Float Furnace



# Switch to 330 Straight

- W.E. After Silica Expansion
- Before Temps that Kill 18SR
- Get 45 out of Furnace
- With Client Agreement
- Job Folder Example

JOB DATA INFORMATION											
OM	Crow Shop										
JOB SITE / END USER	Cardinal PG										
ADDRESS	342 Mooresville Blvd										
CITY / STATE	Mooresville, NC 28115										
CONTACT	John Blocher - c: 704-746-5277 Jim Stevens - c: 704-400-1178										
UNIT	Float Glass Furnace										
TYPE OF SERVICE	H/U w/ECS & Cullet Fill Crown Rise Monitoring										
CONTRACT WITH CONTACT	Same										
JOB SITE CONTACT PHONE	As above										
HOTEL INFO	Sleep Inn & Suites 132 Meadow Hill Ct Mooresville, NC 28117 704-799-7070										
LENGTH (total days)	22 days (2 s/a, 17 h/a, 3 cullet)										
SETUP (hrs)	2 days w/2 burner techs										
SPECIAL EQUIPMENT	1 day before lightoff w/ECS techs for furnace inspection										
OUTSIDE	No										
#TECHNICIANS	4										
SKILL LEVELS	ECS x 2; heatup x 2										
COMMENTS:	Must change out working end 45° burner nozzles to straight nozzles @ 1600°F - NO EXCEPTIONS!										
Other Requirements	<table border="1"> <tr> <td><input type="checkbox"/> MSHA Part 46 Training</td> <td><input type="checkbox"/> Current Drug Test</td> </tr> <tr> <td><input type="checkbox"/> Basic Plus / Bay Area</td> <td><input checked="" type="checkbox"/> Site Specific</td> </tr> <tr> <td><input type="checkbox"/> Gas Motoring</td> <td><input type="checkbox"/> Respirator Fit Test</td> </tr> <tr> <td><input type="checkbox"/> Lead Testing</td> <td><input type="checkbox"/> OSHA 10 Hour</td> </tr> <tr> <td></td> <td><input type="checkbox"/> TWIC</td> </tr> </table>	<input type="checkbox"/> MSHA Part 46 Training	<input type="checkbox"/> Current Drug Test	<input type="checkbox"/> Basic Plus / Bay Area	<input checked="" type="checkbox"/> Site Specific	<input type="checkbox"/> Gas Motoring	<input type="checkbox"/> Respirator Fit Test	<input type="checkbox"/> Lead Testing	<input type="checkbox"/> OSHA 10 Hour		<input type="checkbox"/> TWIC
<input type="checkbox"/> MSHA Part 46 Training	<input type="checkbox"/> Current Drug Test										
<input type="checkbox"/> Basic Plus / Bay Area	<input checked="" type="checkbox"/> Site Specific										
<input type="checkbox"/> Gas Motoring	<input type="checkbox"/> Respirator Fit Test										
<input type="checkbox"/> Lead Testing	<input type="checkbox"/> OSHA 10 Hour										
	<input type="checkbox"/> TWIC										
DATE	March 18, 2015										
BY	RN										
AGENT/SALESMAN	House										
INDUSTRY	Glass										
OE No.	1617402B										
P.O. No.	291223 OP										
INSURANCE REQUEST											
FUEL CONTRACTOR	N/A										
ADDRESS											
CONTACT											
PHONE											
SITE TIME (PSD):	3/22/2015										
PROVIDED BY:	J Stevens										
SITE DATE	3/22/2015										
TIME	0700 hrs										
Site specific training upon arrival Equipment to arrive around 8 am											

- No Smoking on site  
- No Drinks in Aluminum Cans

# History

- ◎ Visteon Nashville 2006
  - 18SR Cone Deteriorated and Fell In
- ◎ Cardinal Mooresville March 2015
  - “Pulled Back” 18SR Cones – Deteriorated
- ◎ Fuyao Mt Zion July 2015
  - 18SR Long Cone Collapsed at 2130F
- ◎ PGW Meadville August 2015
  - Paul Called to Ask
  - “Do I Really Have to?”



# What Do These Have in Common?

- Glass Eruption Thru Charge Holes
- Heat Up Curve Missed
- 18SR Cones Fail at High Temperature
- Answer
  - *There was a written instruction that, if followed, would have prevented the problem.*





Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of Coke Calciner @Alcoa, Lake Charles. (1680300)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <u>X</u> No</b> If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>yes</u></b>	<b>8. Comments:</b> Arrived on time, set up in a timely manner and completed the dry out with the professionalism we expect from Hotwork.

Name: Dan Pryor  
Title: Project Manager  
Date: 4/16/15

R & H Quality Services  
PO Box 2017  
Sulphur, LA 70664-2017  
ATTN: Mr. Daniel Pryor

Tel: (859) 276-1570  
Fax: (859) 276-1583

Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Dryout of Wood Chip Boiler @ Sierra Pacific, Anderson, CA. (1687900)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>10</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>9</u>	<b>6. What could Hotwork do to provide additional related services for you?</b> Had (1) electrical failure, but no in-part on procedure.
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project? Yes <u>X</u> No</b> If no, please explain:
<b>4. Overall, did we fully meet your requirements and the expectations you had of us? <u>10</u></b>	<b>8. Comments:</b> Communication was excellent, had the impression from the beginning to be in good hands. Just go on this way.

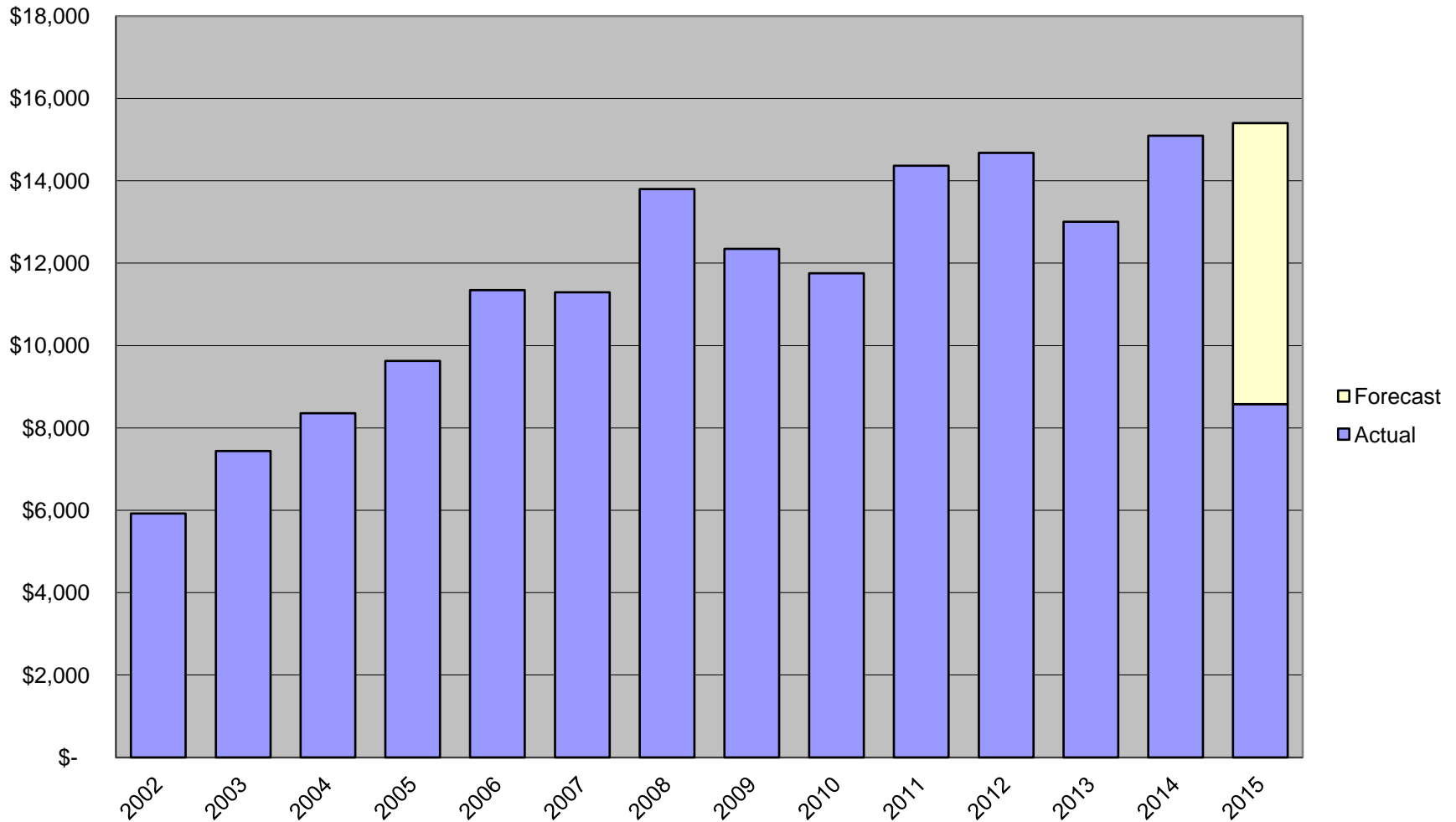
Name: Wolfgang Jahn-Held  
Title: Project Manager  
Date: 8/18/2015

Dieffenbacher USA  
2000 McFarland  
400 Blvd  
Alpharetta, GA 30004  
ATTN: Mr. Wolfgang Jahn-Held

Tel: (859) 276-1570  
Fax: (859) 276-1583

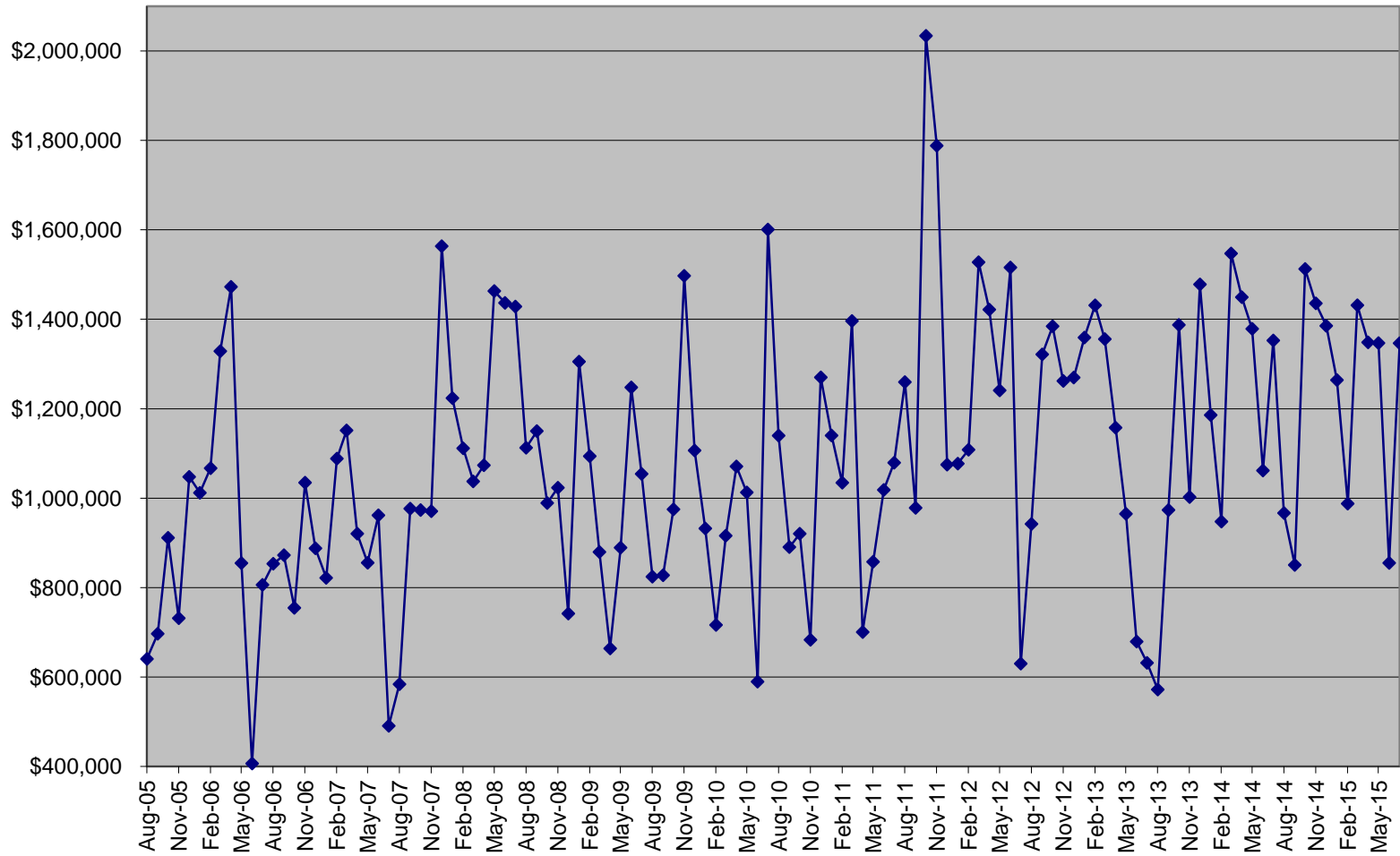
# Hotwork Sales Trends

Hotwork Sales per Year



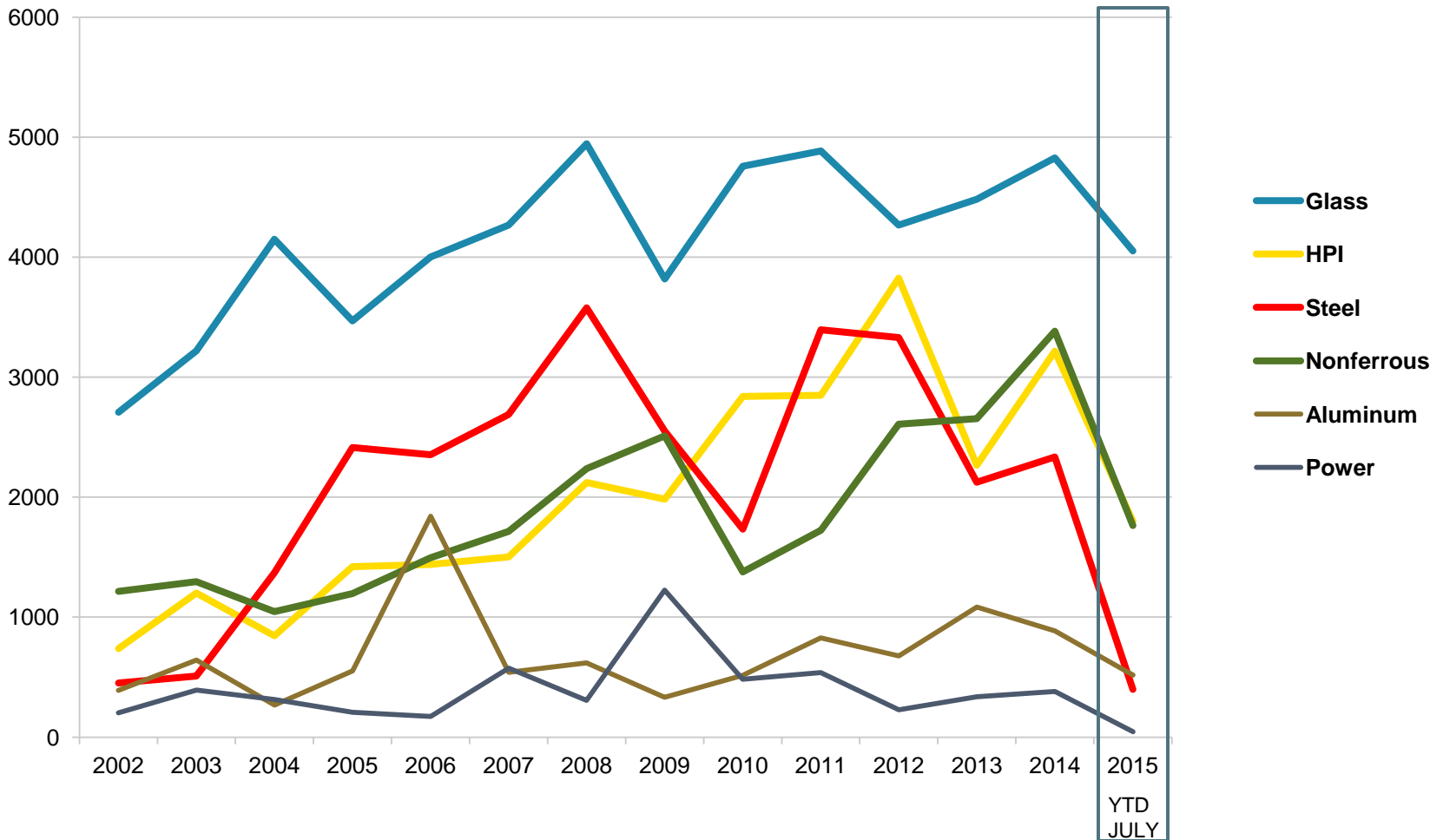
# Monthly Sales Trends

Hotwork Sales per Month



# Industry Sales Trends

## Hotwork Sales Trend By Industry



# Final Words



- ⦿ We Are Really Good
- ⦿ We Can Be Even Better
- ⦿ To Prevent the Serious Incidents
  - We Must *All* Learn from the Near Misses
- ⦿ Sometimes it's the Simple Stuff
- ⦿ Read the Job Folder
- ⦿ Take the Paperwork Seriously
- ⦿ If You're Not Sure, Call



# Questions?



Please rate us on a scale of 1 to 10 and mail the form in the enclosed self-addressed, stamped envelope or fax to our Lexington, Kentucky office (859-276-1583):

Re: Heatup w/ECS of Sorg Furnace @ your Richmond, IN facility. (1637202)

Highly Satisfied (10).....Satisfied (7).....Disappointed (4).....Very Disappointed (1)

<b>1. Sales and Pre-Engineering</b> a. Salesman or agent courteous and knowledgeable? <u>10</u> b. Customer service personnel courteous and knowledgeable? <u>10</u> c. Quotation professional and complete? <u>10</u> d. Technical information prompt and complete? <u>10</u>	<b>5. How can we perform this service better?</b> <i>Received great support. Pre-visits for drain really helped. Changed heat-up technique used slightly. Pre-planning helped.</i>
<b>2. Technical</b> a. Adherence to temperature schedule? <u>10</u> b. Temperature uniformity? <u>8</u> c. Thoroughness of heatup/dryout? <u>10</u> d. Overall equipment performance? <u>10</u> e. Chocker heating? <u>10</u> f. Expansion control supervision (ECS)? <u>10</u> g. Cullet fill? <u>N/A</u> h. Furnace drain? <u>10</u> i. Sulfate burnout? <u>N/A</u>	<b>6. What could Hotwork do to provide additional related services for you?</b>
<b>3. Crew Performance</b> a. On time and ready when you were? <u>10</u> b. Attention to job details? <u>10</u> c. Did crew adequately communicate with you and your personnel? <u>10</u> d. Personal appearance? <u>10</u> e. Housekeeping? <u>10</u>	<b>7. Will Hotwork be your preferred supplier for your next project?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If no, please explain: <i>BIG GUYS IN ORANGE COATS EASY TO FIND!</i>
<b>4. Overall, did we fully meet your requirements and the expectations you had of us?</b> <i>(Yes! 10/10)</i>	<b>8. Comments:</b>

Name: GLENN ASPHOLM  
Title: PROJECT MANAGER  
Date: 8/17/2015

Johns Manville  
PO Box 5108  
Denver, CO 80217-5108  
Attn: Mr. Glenn Aspholm

Tel: (859) 276-1570  
Fax: (859) 276-1583

*Thank for everything. You are great to work with.*